

4

Science Standard
4.2.c.



Life and Death with Decomposers

California Education and the Environment Initiative

Approved by the California State Board of Education, 2010

The Education and the Environment Curriculum is a cooperative endeavor of the following entities:

California Environmental Protection Agency
California Natural Resources Agency
Office of the Secretary of Education
California State Board of Education
California Department of Education
California Integrated Waste Management Board

Key Leadership for the Education and Environment Initiative:

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Key Partners:

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Office of Education and the Environment

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Lesson 1 Breaking It Down

None required for this lesson.

Lesson 2 Decomposers and Scavengers

None required for this lesson.

Lesson 3 A Big Job for a Tiny Crew

None required for this lesson.

Lesson 4 Waste Not

None required for this lesson.

Lesson 5 Down on the Farm

None required for this lesson.

Lesson 6 The Benefits of Composting

None required for this lesson.

Assessments

Life and Death with Decomposers—Traditional Unit Assessment Master 2

Decomposition Poster Instructions—Alternative Unit Assessment Master 5

Name: _____

Part 1

Instructions: Select the best answer and circle the correct letter. (2 points each)

1. In which list are all three organisms decomposers?
 - a. earthworm, fungi, bacteria
 - b. bacteria, yeast, mold
 - c. scavenger, mold, sow bug

2. Living things that use chemicals to break down matter are called _____.
 - a. decomposers
 - b. scavengers
 - c. consumers

3. Decomposers in food chains _____.
 - a. are eaten by other consumers
 - b. feed on dead plants and animal matter
 - c. both a and b

4. How do decomposers help humans grow food?
 - a. They release nutrients into the soil and make humus.
 - b. They clean up waste.
 - c. Both a and b.

5. What would happen if there were no decomposers?
 - a. Plants and animals would not die.
 - b. Nutrients would not get back into the soil, water, and air.
 - c. There would be more topsoil on Earth.

Name: _____

Part 2

Instructions: Read each question and write a complete answer. (3 points each)

6. What are three ways that decomposers help forests and other ecosystems?

7. How do decomposers help agriculture?

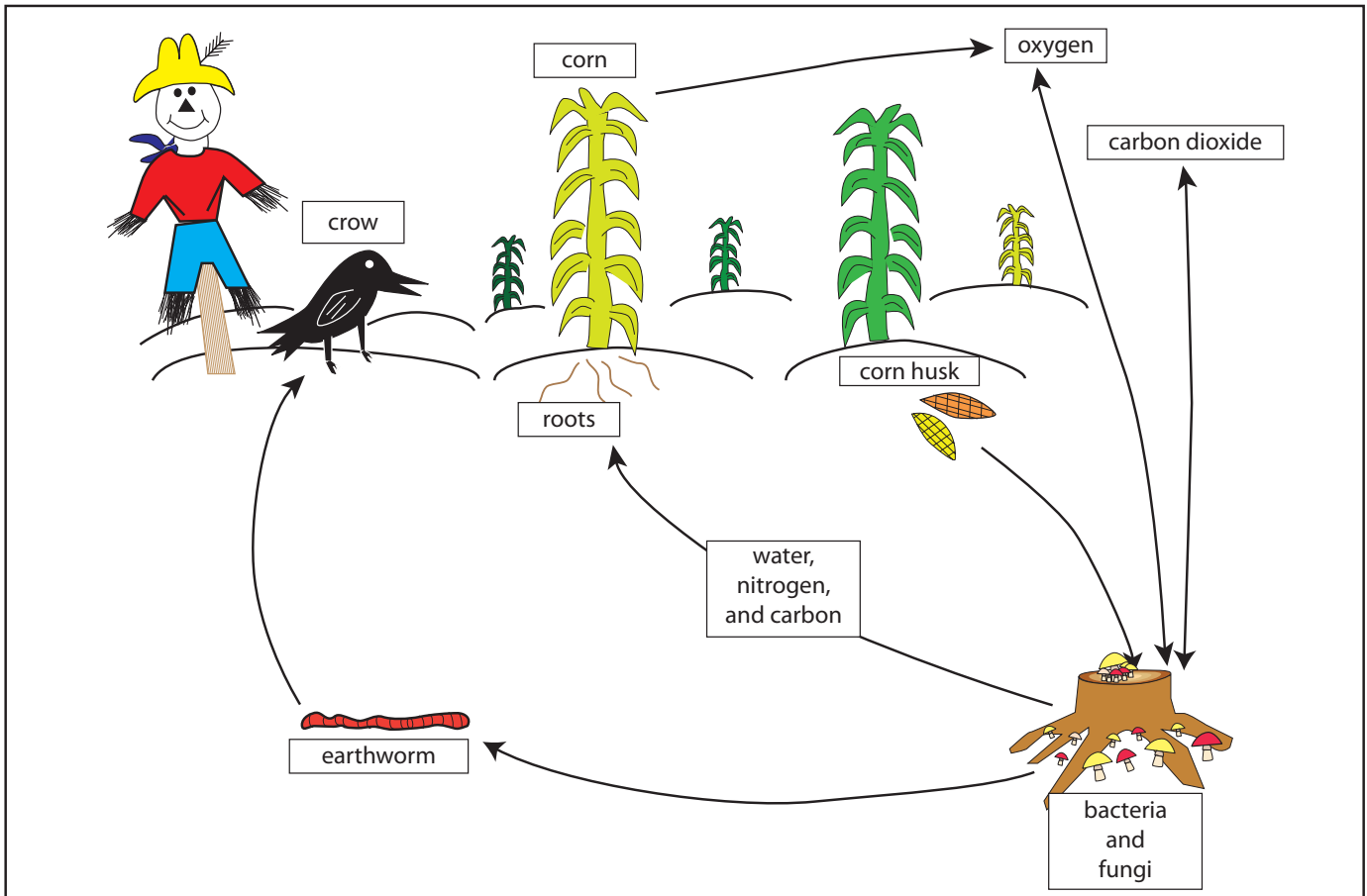
8. How does our wastewater management system use decomposers?

9. How do our communities use decomposers to manage our garbage?

Name: _____

Part 3

Instructions: Look at the diagram and then answer the questions. (2 points each)



10. Name two decomposers in the diagram. _____

11. Name at least two things that the decomposers do for the other things in this picture. _____

12. Name at least two ways that the activities and things shown in the diagram help people. _____

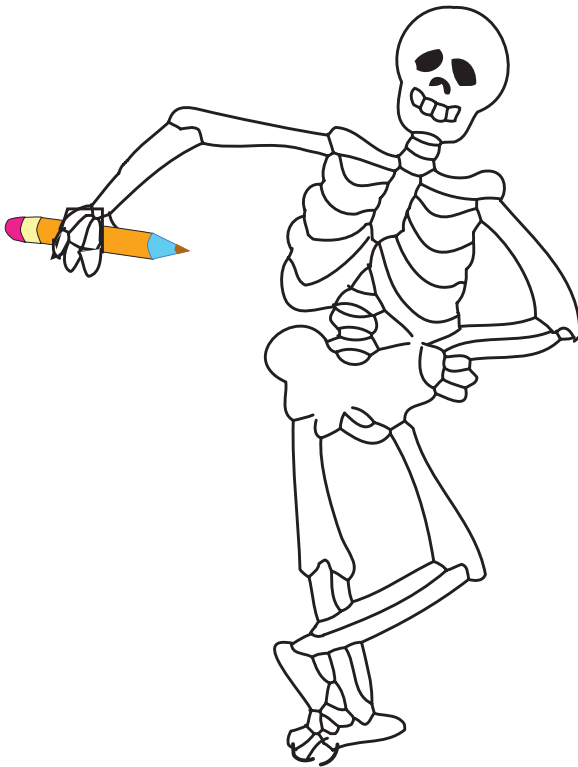
Decomposition Poster Instructions

Alternative Unit Assessment Master | page 1 of 2

Name: _____

Instructions: Create a poster that shows the roles of decomposers and decomposition. First, choose an ecosystem. Then think about how you will show the following:

- **The decomposers in the ecosystem.** What do they look like?
How big are they? Where are they found? What do they do?
- **How decomposers are part of the food chain.** What do decomposers eat?
Who eats them?
- **What the ecosystem gets from decomposers.** What happens when decomposers do their jobs really well? What does the ecosystem get?
- **Why the decomposers are important to humans.** What do humans depend on from this ecosystem? How do the decomposers help?



My Decomposition Poster is due on: _____

Decomposition Poster Instructions

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Make sure you put your **name** and a **title** on your poster.
Here is how your poster will be scored:

Your Poster Shows	4 points	3 points	2 points	1 point
Parts of the Ecosystem	The diagram shows four or five organisms and parts of their habitats.	The diagram shows three or four organisms and parts of their habitats.	The diagram shows one or two organisms and parts of their habitats.	The diagram shows only organisms. It does not include the nonliving parts of their habitats.
Decomposers in the Food Chain	All organisms drawn are named and identified with labels that indicate their place in the food chain.	Most of the organisms are named and identified with labels that indicate their place in the food chain.	Half the organisms are named and identified with labels that indicate their place in the food chain.	Fewer than half of the organisms are named and identified with labels that indicate their place in the food chain.
Decomposers in the Nutrient Cycle	Arrows are drawn and labeled, showing where nutrients are released by all decomposers back into the ecosystem.	Many arrows are drawn and labeled, showing where nutrients are released by decomposers back into the ecosystem.	Some arrows are drawn and labeled, showing where nutrients are released by decomposers back into the ecosystem.	One or two arrows are drawn or labeled, showing where nutrients are released by decomposers back into the ecosystem.
Human Practices That Rely on Decomposers	Poster identifies and gives a detailed description of two ways humans depend on decomposers in the ecosystem.	Poster identifies and gives a simple description of two ways humans depend on decomposers in the ecosystem.	Poster identifies and gives a simple description of one way humans depend on decomposers in the ecosystem.	Poster begins to identify one way humans depend on decomposers in the ecosystem, but no description is given.



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